

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-078889

(43)Date of publication of application : 22.03.1994

(51)Int.Cl.

A61B 5/0408
 A61B 5/0478
 A61B 5/0492
 G01N 27/26
 G01N 27/30
 G01N 27/416
 // H01B 5/14

(21)Application number : 04-236998

(71)Applicant : MATSUSHITA ELECTRIC IND CO LTD

(22)Date of filing : 04.09.1992

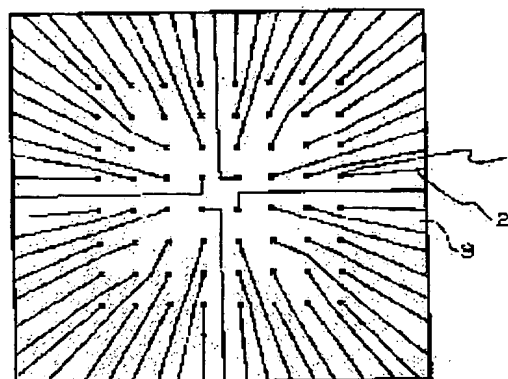
(72)Inventor : SUGIHARA HIROKAZU
TAKEYA MAKOTO
MITSUMATA TADAYASU

(54) INTEGRATED COMPOSITE ELECTRODE

(57)Abstract:

PURPOSE: To enable the simultaneous multipoint excitation and record of the neurocytes over a long period of time and to enhance responsiveness by limiting the length on one side or diameter of square or circular electrodes to a specific range.

CONSTITUTION: This integrated composite electrode has plural pieces of the electrodes 1 which are equal in the nearest inter-electrode distance to each other on an insulating substrate 3. Lead wires 2 are approximately radially disposed from the electrodes 1 and an insulating layer to cover these lead wires 2 is provided. The shape of the electrodes 1 is preferably formed to the circular or square shape in order to maintain the specified nearest inter-electrode distance. The change in the potential V to be measured decreases when a resistance value R decreases when a current value I is constant. Namely, the electrical activity of the cells to be measured decreases and S/N falls. The electrode area is, therefore, required to be prudently adjusted. Then, the electrodes 1 are the square or circular shape and the length or diameter of the one side is specified to the value larger than $20\mu\text{m}$ and smaller than $200\mu\text{m}$.



LEGAL STATUS

[Date of request for examination] 30.10.1997

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or

application converted registration]

[Date of final disposal for application]

[Patent number] 3193471

[Date of registration] 25.05.2001

[Number of appeal against examiner's decision
of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office